

## **REMARKS**

Claims 1-6, 9-19, 22-24 and 26-29 are currently pending. Claims 1, 4, 9, 16 and 19 have been amended and claims 7, 8, 20 and 21 have been canceled.

### **Claim Amendments**

Claim 1 was amended to incorporate the recitations of claim 8. Accordingly, claim 8 was canceled. Accordingly, claim 9 was amended to depend from claim 1.

Claim 16 was amended to incorporate the recitations of claim 21. Accordingly, claim 21 was canceled.

Claims 4 and 19 have been amended to recite that at least one aperture or recess extends through an entire thickness of the first storage layer.

Support for the amendments may be found throughout the specification. Entry of the amendments is respectfully requested.

### **§ 112 Rejections**

Claims 7 and 20 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Applicants have canceled claims 7 and 20 without admission regarding the Examiner's allegation.

Accordingly, the rejection is moot and is respectfully requested to be withdrawn.

### **Art Rejections - Bernardin in view of Guidotti**

Claims 1-4, 9, 14, 15, 19, 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of Guidotti (USPN 6,037,518). Applicants respectfully traverse this rejection.

The Examiner is thanked for the careful consideration of the applicants' previous response. In the following, applicants address certain issues raised by the Examiner. However, the lack of a response to an issue should not be viewed as an admission of the Examiner's assertion for that issue.

Superabsorbents

Claim 1 recites that the first storage layer comprises at least 50 percent by weight of a super absorbent material calculated on the total weight of the first storage layer.

Claim 16 recites that the first storage layer comprises a super absorbent material.

Bernardin does not teach or suggest each feature of the presently claimed invention, as set forth in representative claims 1 and 16. For example, Bernardin does not teach or suggest that a first storage layer contains superabsorbent material.

The Examiner asserts that:

In fact, Col. 4, lines 33-35 describe an embodiment in which SAP 9 is included as part of the absorbent material 4, which serves to support Examiner's position that SAP could be placed in another absorbent layer, the first storage layer 10, with a reasonable expectation of success as both the first storage layer and the absorbent layer perform a substantially identical function, differing only in their overall absorbent capacity.

See Official Action at page 2.

Respectfully, the Examiner has misinterpreted the teachings of Bernardin. Bernardin references absorbent material 4 as a generic term that comprises all the types/layers of absorbent material in the article. For example, in Fig. 2, absorbent material 4 comprises lower density layer 5 and higher density layer 6; in Fig. 4, absorbent material 4 comprises lower density layer 5 and higher density layer 6; in Fig. 7, absorbent material 4 comprises lower density layer 5 and first higher density component 10, second higher density component 11 and superabsorbent material 9; in Fig. 9, absorbent material 4 comprises lower density layer 5, higher density layer 6 and superabsorbent material 9.

Thus, the reference at column 4, lines 33-35 ("The second aspect of the invention relates to including a portion of superabsorbent material (SAM) 9 as part of the liquid absorbent material") is simply a reference that the totality of absorbent material (absorbent material 4) can include a layer of superabsorbent material (super absorbent material 9). There is no teaching or suggestion that the superabsorbent material 9 is part of higher density layer 6 or first higher density component 10. Bernardin only teaches the superabsorbent material 9 as a separate layer.

Moreover, Bernardin teaches away from including superabsorbent in the first high density component 10. Bernardin teaches that when superabsorbent is included in the Bernardin diaper, it is incorporated as a separate layer 9. See Figure 7. The superabsorbent layer 9 is placed between the first and second high density components 10, 11. Bernardin teaches that the purpose for sandwiching the superabsorbent layer 9 between the first high density component 10 and the second high density component 11 is so that liquid waste is brought into contact with an upper and lower surface of the superabsorbent layer 9, rather than across a bottom edge thereof. See column 5, lines 16-24.

Applicants are not taking this teaching out of context, as asserted by the Examiner. Instead, the Examiner has misinterpreted Bernardin at column 4, lines 33-35. Bernardin teaches that absorbent material 4 comprises all the different layers/components of different types of absorbent materials. Further, Bernardin teaches that super absorbent material 9 can be one of the layers/components. Then, one skilled in the art is taught that super absorbent material 9 is a separate layer that is placed below higher density layer 6 (see, e.g., Fig. 9) or first higher density component 10 (see, e.g., Fig. 7).

Accordingly, one skilled in the art would not be motivated to modify Bernardin in order to make a alleged first storage layer (first high density component 10) that includes superabsorbents.

Accordingly, Bernardin in view of Guidotti does not teach or suggest each feature of the presently claimed invention.

#### First Storage Layer Lies Between

Claims 1 and 16 have been amended to recite that the first storage layer lies between the acquisition layer and the liquid permeable upper surface.

The Examiner asserts that first high density component 10 allegedly corresponds to the presently claimed first storage layer. See Figure 7 of Bernardin.

The Examiner further asserts that lower density layer 5 allegedly corresponds to the presently claimed acquisition layer. See Figure 7 of Bernardin.

As is clear in Bernardin, layer 10 is not between the alleged acquisition layer (lower density layer 5) and the liquid permeable upper surface.

First, we note that "These first and second higher density components 10, 11 are disposed in an equivalent position to the higher density layer 6 in the first three embodiments discussed above." Column 4, line 66 to column 5, line 1. Thus, the discussion in Bernardin regarding the relationship between the alleged acquisition layer (lower density layer 5) and higher density layer 6 directly relates to the relationship between the alleged acquisition layer (lower density layer 5) and the alleged first storage layer (first high density component 10).

Bernardin specifically teaches that "The liquid absorbing material 4 comprises a first, lower density layer 5 of cellulosic fibers such as comminuted wood pulp (fluff) which lies beneath the inner liner 2. A second, higher density layer 6 of fluff lies beneath at least a portion of the first lower density layer 5 such that waste fluid can be transferred from the lower density layer 5 to the higher density layer 6. Thus, a lower surface 15 of the lower density layer 5 should be contiguous with at least a portion of an upper surface 16 of the higher density layer 6." Column 3, lines 22-31.

In order to achieve its principle of operation, Bernardin teaches that the higher density layer 6 is below the lower density layer 5. See column 3, lines 50-68 ("The higher density layer 6 draws waste fluid from the lower density layer 5 in the target area 7 upwardly towards the edge 8 at the back of the diaper 1. Further, along upper regions 18 of the higher density layer 6 towards the upper edge 8 there is, surprisingly, substantial fluid transfer back from the higher density layer 6 to the lower density layer 5. It is important to note that although this flowback occurs from the higher density layer 6 to the lower density layer 5, the lower density layer 5 only draws sufficient fluid to satisfy its unsaturated capillary forces proximate to the higher density layer 6, where there is an overlap in pore sizes such that the smallest pores in the lower density layer 5 are smaller than the largest pores in the higher density layer 6. The lower density layer 5 drains fluid from the higher density layer 6 but does not become soaked, with the advantage that the wearer's comfort is maintained while a significant proportion of the absorption capacity of the lower density layer 5 is utilized.").

As clearly stated in the MPEP, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." MPEP § 2143.01(VI). Here, the Examiner's proposed

modification is to switch the placement of lower density layer 5 and higher density layer 6 (or its equivalent in first high density component 10). This would change the entire principal of operation of Bernardin which relies upon the specific placement of the two layers in order to achieve proper "flowback" and maintain a wearer's comfort while utilizing a significant proportion of the absorption capacity of the lower density layer 5.

Thus, one skilled in the art would not make the proposed modification, as suggested by the Examiner.

Accordingly, Bernardin in view of Guidotti does not teach or suggest each feature of the presently claimed invention.

#### Claims 4 and 19

Claims 4 and 19 have been amended to recite that at least one aperture or recess extends through an entire thickness of the first storage layer.

The Examiner has asserted that an aperture is a genus that includes pores. Applicants continue to traverse this interpretation. However, as amended, claims 4 and 19 recite that at least one aperture or recess extends through the first storage layer. It is quite clear that a single pore of Bernardin does not extend through an entire thickness of the first storage layer.

Accordingly, the rejection must be withdrawn.

#### Claim 9

Claim 9 depends from claim 8 and recites that the absorbent article comprises a liquid permeable top sheet, wherein the liquid permeable top sheet and the acquisition layer are thermally joined in a hollow space in the first storage layer created by said apertures or recesses.

The first storage layer lies between the acquisition layer and the liquid permeable top sheet. And, the acquisition layer must pass through/between the first storage layer in order to be joined to the liquid permeable top sheet.

Thus, because the acquisition layer must pass through/between the first storage layer in order to be joined to the liquid permeable top sheet it is quite a different connection than a peripheral edge connection.

This rejection is respectfully requested to be withdrawn.

Claims 14 and 22

Claim 14 recites that the absorbent structure further comprises a second storage layer containing a lower amount of super absorbent material calculated on the total weight of the storage layer than the first storage layer.

The Examiner has asserted that second high density component 11 corresponds to the second storage layer. See Figure 7 of Bernardin.

The Examiner has asserted that it would be obvious to one of ordinary skill in the art to include superabsorbent in second high density component 11. As with the first high density component 10, this is wrong.

Bernardin teaches that absorbent material 4 comprises all the different layers/components of different types of absorbent materials. Further, Bernardin teaches that super absorbent material 9 can be one of the layers/components. Then, one skilled in the art is taught that super absorbent material 9 is a separate layer that is placed below higher density layer 6 (see, e.g., Fig. 9) or first higher density component 10 (see, e.g., Fig. 10).

Accordingly, one skilled in the art would not be motivated to modify Bernardin in order to make an alleged second storage layer (second high density component 11) that includes superabsorbents.

Accordingly, Bernardin in view of Guidotti does not teach or suggest each feature of the presently claimed invention.

Claims 15 and 23

Claim 15 recites that the absorbent structure further comprises a second storage layer and the second storage layer partly or entirely encloses the first storage layer.

The Examiner admits that Bernardin does not teach that the alleged second storage layer (second high density component 11) partly or entirely encloses the alleged first storage layer (first high density component 10).

The Examiner appears to simply assert that one skilled in the art would have made the asserted modification as it is obvious. Yet, the Examiner has pointed to no reason found in the art why one skilled in the art would have made such a change.

This rejection is respectfully requested to be withdrawn.

**Bernardin in view of Guidotti Conclusion**

Accordingly, applicants respectfully request that the rejection of claims 1-4, 9, 14, 15, 19, 22 and 23 as being unpatentable over Bernardin in view of Guidotti be withdrawn.

**Art Rejections - Bernardin in view of Lassen**

Claims 5, 6, 26 and 28 stand rejected under 35 U.S.C § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of Lassen (US Pat App Pub No 2002/0013563). Applicants respectfully traverse this rejection.

Bernardin does not teach or suggest each feature of the presently claimed invention. For example, Bernardin does not teach or suggest that a first storage layer contains superabsorbent material. Lassen does not remedy this deficiency.

Clearly, the combination of Bernardin in view of Lassen does not teach or suggest the presently claimed invention.

Further, if the Examiner were to assert a combination of Bernardin in view of Guidotti in view of Lassen, applicants have highlighted a number of deficiencies of the Bernardin in view of Guidotti combination that are not remedied by Lassen.

Accordingly, applicants respectfully request that the rejection of claims 5, 6, 26 and 28 as being unpatentable over Bernardin in view of Lassen be withdrawn.

**Art Rejections - Bernardin in view of Berg**

Claims 10 and 12 stand rejected under 35 U.S.C § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of Berg (USPN 5,180,622). Applicants respectfully traverse this rejection.

Claims 10 and 12 depend from claim 1.

The combination of Bernardin in view of Berg does not teach or suggest the presently claimed invention.

Further, if the Examiner were to assert a combination of Bernardin in view of Guidotti in view of Berg, applicants have highlighted a number of deficiencies of the Bernardin in view of Guidotti combination that are not remedied by Berg.

Further, claim 10 recites that the acquisition layer is a polyacrylate based super absorbent foam material.

The Examiner has alleged that Berg teaches a polyacrylate based super absorbent foam material and that one would be motivated to use the polyacrylate based super absorbent foam material in the alleged acquisition layer (lower density layer 5).

Bernardin specifically teaches that "The liquid absorbing material 4 comprises a first, lower density layer 5 of cellulosic fibers such as comminuted wood pulp (fluff) which lies beneath the inner liner 2. A second, higher density layer 6 of fluff lies beneath at least a portion of the first lower density layer 5 such that waste fluid can be transferred from the lower density layer 5 to the higher density layer 6. Thus, a lower surface 15 of the lower density layer 5 should be contiguous with at least a portion of an upper surface 16 of the higher density layer 6." Column 3, lines 22-31.

In order to achieve its principle of operation, Bernardin teaches that the higher density layer 6 is below the lower density layer 5. See column 3, lines 50-68 ("The higher density layer 6 draws waste fluid from the lower density layer 5 in the target area 7 upwardly towards the edge 8 at the back of the diaper 1. Further, along upper regions 18 of the higher density layer 6 towards the upper edge 8 there is, surprisingly, substantial fluid transfer back from the higher density layer 6 to the lower density layer 5. It is important to note that although this flowback occurs from the higher density layer 6 to the lower density layer 5, the lower density layer 5 only draws sufficient fluid to satisfy its unsaturated capillary forces proximate to the higher density layer 6, where there is an overlap in pore sizes such that the smallest pores in the lower density layer 5 are smaller than the largest pores in the higher density layer 6. The lower density layer 5 drains fluid from the higher density layer 6 but does not become soaked, with the advantage that the wearer's comfort is maintained while a significant proportion of the absorption capacity of the lower density layer 5 is utilized.").

As clearly stated in the MPEP, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." MPEP § 2143.01(VI). Here, the Examiner's proposed modification is to use the polyacrylate based super absorbent foam material in the alleged acquisition layer (lower density layer 5). This would change the entire principal of operation of Bernardin which relies upon the relationship between the



two layers in order to achieve proper "flowback" and maintain a wearer's comfort while utilizing a significant proportion of the absorption capacity of the lower density layer 5.

Thus, one skilled in the art would not make the proposed modification, as suggested by the Examiner.

Accordingly, applicants respectfully request that the rejection of claims 10 and 12 as being unpatentable over Bernardin in view of Berg be withdrawn.

**Art Rejections - Bernardin in view of Berg in view of Shepard**

Claim 11 stands rejected under 35 U.S.C § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of Berg (USPN 5,180,622) in view of Shepard (USPN 6,869,659). Applicants respectfully traverse this rejection.

Claim 11 depends from claim 1.

The combination of Bernardin in view of Berg in view of Shepard does not teach or suggest the presently claimed invention.

Further, if the Examiner were to assert a combination of Bernardin in view of Guidotti in view of Berg in view of Shepard, applicants have highlighted a number of deficiencies of the Bernardin in view of Guidotti combination that are not remedied by Berg and/or Shepard.

Further, claim 11 recites that the foam material of the acquisition layer exhibits a Gurley stiffness value lower than 1000 mg and a density in a dry condition exceeding  $0.5 \text{ g/cm}^3$ .

The Examiner has alleged that Shepard teaches a foam for the backing of a loop material for a fastening device with the claimed foam properties. Then, the Examiner alleges that one skilled in the art would have been motivated by the foam of Shepard to modify the foam of the alleged acquisition layer (lower density layer 5).

The asserted basis for this substitution is that foam of Shepard seeks to solve an allegedly similar problem in the art to the device of Bernardin (i.e. foam as a layer of absorbent article to impart a desired stiffness).

However, this again overlooks that the proposed modification would change the entire principal of operation of Bernardin which relies upon the relationship between the two layers in order to achieve proper "flowback" and maintain a

wearer's comfort while utilizing a significant proportion of the absorption capacity of the lower density layer 5.

Moreover, it is unreasonable to assert that one skilled in the art would modify the highly specialized foam of an acquisition layer by teaching of a foam for the backing of a loop fastener. This is not proper. One skilled in the art would not turn to or look to teachings of a support/backing layer to modify a specialized absorption layer.

Accordingly, applicants respectfully request that the rejection of claim 11 as being unpatentable over Bernardin in view of Berg in view of Shepard be withdrawn.

**Art Rejections - Bernardin in view of McBride**

Claim 13 stands rejected under 35 U.S.C § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of McBride (US Pat App Pub No 2004/0019340). Applicants respectfully traverse this rejection.

Claim 13 depends from claim 1.

The combination of Bernardin in view of McBride does not teach or suggest the presently claimed invention.

Further, if the Examiner were to assert a combination of Bernardin in view of Guidotti in view of McBride, applicants have highlighted a number of deficiencies of the Bernardin in view of Guidotti combination that are not remedied by McBride.

Accordingly, applicants respectfully request that the rejection of claim 13 as being unpatentable over Bernardin in view of McBride be withdrawn.

**Conclusion**

Favorable examination and further action in the form of a Notice of Allowance is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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By: \_\_\_\_\_

*T.D. Boone*

Travis D. Boone

Registration No. 52,635

P.O. Box 1404  
Alexandria, VA 22313-1404  
703 836 6620